IP 02-0009-CR 1 H/F US v. Niemoeller
Judge David F. Hamilton Signed on 1/24/03

NOT INTENDED FOR PUBLICATION IN PRINT

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

USA,	)	
	)	
Plaintiff,	)	
vs.	)	
	)	
NIEMOELLER, MARK R,	)	CAUSE NO. IP02-0009-CR-01-H/F
	)	
Defendant.	)	

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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	CAUSE NO. IP 02-09-CR-1 H/F
v.	)	
	)	
MARK R. NIEMOELLER,	)	
	)	
Defendant.	)	

ENTRY ON MOTION TO DISMISS COUNTS NINE, ELEVEN AND TWELVE

Defendant Mark Niemoeller has moved to dismiss Counts Nine, Eleven, and Twelve of the superseding indictment. Defendant argues that the Controlled Substance Analogue Enforcement Act of 1986, 21 U.S.C. §§ 813 and 802(32), is so vague that his conviction under the Act would deprive him of liberty without due process of law. The court held an evidentiary hearing on the motion on January 3, 2003, and the parties have submitted post-hearing briefs. For the reasons explained below, the motion to dismiss Counts Nine, Eleven, and Twelve is denied.

Counts Nine and Eleven charge that defendant violated 21 U.S.C. § 841(a)(1) and § 813 by knowingly distributing a substance known as 2-CT-7,

which is a short name for 2,5-dimethoxy-4-(n)-propylthiophenethylamine. The indictment charges that 2-CT-7 is an unlawful analogue of the Schedule I controlled substance known as 2CB and "Nexus." Count Twelve charges that defendant violated 21 U.S.C. § 841(a)(1) and § 813 by knowingly distributing 1,4-butanediol, which the government charges is an analogue of the Schedule I controlled substance gamma hydroxybutyrate, also known as "GHB."

At the time of the alleged distributions, in April and June 2001, 2-CT-7 and 1,4-butanediol were not "scheduled" controlled substances under federal law. These charges in the superseding indictment are based on the Controlled Substance Analogue Enforcement Act ("the Act"). As amended, the Act provides: "A controlled substance analogue shall, to the extent intended for human consumption, be treated for the purposes of any Federal law as a controlled substance in schedule I." 21 U.S.C. § 813. The Act includes a detailed definition of a "controlled substance analogue," which was added to the definition section of the Controlled Substance Act:

> (32)(A) Except as provided in subparagraph (C), the term "controlled substance analogue" means a substance –
>
> (i) the chemical structure of which is substantially similar to the chemical structure of a controlled substance in schedule I or II;
>
> (ii) which has a stimulant, depressant, or hallucinogenic effect on the central nervous system that is substantially similar to or greater

than the stimulant, depressant, or hallucinogenic effect on the central nervous system of a controlled substance in schedule I or II; or

(iii) with respect to a particular person, which such person represents or intends to have a stimulant, depressant, or hallucinogenic effect on the central nervous system that is substantially similar to or greater than the stimulant, depressant, or hallucinogenic effect on the central nervous system of a controlled substance in schedule I or II.

(B) The designation of gamma butyrolactone or any other chemical as a listed chemical pursuant to paragraph (34) or (35) does not preclude a finding pursuant to subparagraph (A) of this paragraph that the chemical is a controlled substance analogue.

(C) Such term does not include –

(i) a controlled substance;

(ii) any substance for which there is an approved new drug application;

(iii) with respect to a particular person any substance, if an exemption is in effect for investigational use, for that person, under section 355 of this title to the extent conduct with respect to such substance is pursuant to such exemption; or

(iv) any substance to the extent not intended for human consumption before such an exemption takes effect with respect to that substance.

21 U.S.C. § 802(32).[1]

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[1]The government has agreed with the defense in this case that the government must prove beyond a reasonable doubt both part (i) and either part (ii) or part (iii) of the definition of an analogue under § 802(32)(A). Accord, *United States v. Washam*, 312 F.3d 926, 930 (8th Cir. 2002) (adopting same interpretation); *United States v. Vickery*, 199 F. Supp. 2d 1363, 1368 (N.D. Ga.

(continued...)

Defendant Niemoeller contends that the Controlled Substance Analogue Enforcement Act is void as unconstitutionally vague, both on its face and as applied to the specific charges against him. Defendant has come forward with evidence from chemists and a physician asserting that the key concepts of "substantially similar" chemical structures and "substantially similar" stimulant, depressant, or hallucinogenic effects have no clear scientific meaning. Defendant contends these statutory terms fail to give fair notice of the conduct the criminal law forbids and punishes. The government has responded with evidence showing similarities of chemical structures and effects on the central nervous system, as well as some evidence regarding the circumstances of the charged distributions of these chemicals. The court considers first the "facial" challenge and then the challenge as applied to the two substances in question.

I. *Facial Challenge to the Controlled Substance Analogue Enforcement Act*

A criminal law "may be impermissibly vague because it fails to establish standards for the police and public that are sufficient to guard against the arbitrary deprivation of liberty interests." *Chicago v. Morales*, 527 U.S. 41, 52 (1999) (plurality opinion of Stevens, J.), citing *Kolender v. Lawson*, 461 U.S. 352,

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[1](...continued)
2002) (same); *United States v. Forbes*, 806 F. Supp. 232, 235-36 (D. Colo.1992) (same); contra, *United States v. Greig*, 144 F. Supp. 2d 386, 389-94 (D.V.I. 2001) (requiring proof of only part (i) or part (ii) or part (iii)).

358 (1983). Such a law may raise two distinct problems: first, "it may fail to provide the kind of notice that will enable ordinary people to understand what conduct it prohibits; second, it may authorize and even encourage arbitrary and discriminatory enforcement." *Chicago v. Morales*, 527 U.S. at 56 (plurality opinion of Stevens, J.), citing *Kolender*, 461 U.S. at 357.

Defendant Niemoeller acknowledges that no federal circuit court of appeals has upheld a vagueness challenge to the Controlled Substance Analogue Enforcement Act. See *United States v. Washam*, 312 F.3d 926, 928 (8th Cir. 2002) (affirming conviction for distributing 1,4-butanediol as analogue of GHB); *United States v. Fisher*, 289 F.3d 1329 (11th Cir. 2002) (affirming conviction for distributing gamma-butyrolactone or GBL as analogue of GHB); *United States v. Carlson*, 87 F.3d 440, 443 (11th Cir. 1996) (affirming convictions for conspiracy to distribute MDMA as analogue of MDA); *United States v. Hofstatter*, 8 F.3d 316, 322 (6th Cir. 1993) (affirming convictions for distribution of listed precursor chemicals with intent to manufacture controlled substance analogues); *United States v. Granberry*, 916 F.2d 1008, 1010 (5th Cir. 1990) (affirming conviction for using telephone to distribute analogue of MDA); *United States v. Desurra*, 865 F.2d 651, 653 (5th Cir. 1989) (affirming convictions based on MDMA as analogue of MDA).

Defendant argues, however, that these cases failed to apply the proper standard to a facial challenge to the Act. The Eleventh Circuit in *Carlson*, the Sixth Circuit in *Hofstatter*, and the Fifth Circuit in *Desurra* indicated that the Act could not be challenged as facially invalid for vagueness because it does not threaten to chill protected First Amendment activity. All three courts cited *United States v. Mazurie*, 419 U.S. 544, 550 (1975), to support their treatment of the issue, as did the Eighth Circuit in *Washam* and the Eleventh Circuit in *Fisher*.

In *Mazurie*, the Supreme Court affirmed convictions for introducing alcoholic beverages into "Indian country," despite some room for argument about the scope of a statutory exception for operating a tavern in a "non-Indian community." The Court wrote: "vagueness challenges to statutes which do not involve First Amendment freedoms must be examined in the light of the facts of the case at hand." 419 U.S. at 550. The Court evaluated the due process challenge only as applied to the actual facts of the case, rather than to hypothetical situations that might pose more difficulty in drawing the line between lawful and unlawful conduct. The Court explained that the term "non-Indian community" had "a meaning sufficiently precise for a man of average intelligence to 'reasonably understand that his contemplated conduct is proscribed.'" *Id.* at 553, quoting *United States v. National Dairy Products Corp.*, 372 U.S. 29, 32-33 (1963). Most important for present purposes, the Court based

its decision on the facts of the specific case. After reviewing the evidence, the Court concluded: "Given the nature of the Blue Bull's location and surrounding population, the statute was sufficient to advise the Mazuries that their bar was not excepted from tribal regulation by virtue of being located in a non-Indian community." *Id.*

Defendant Niemoeller argues that *Chicago v. Morales* expressly authorizes facial void for vagueness challenges to statutes not involving the First Amendment, so that *Mazurie*, *Carlson*, *Hofstatter*, and *Desurra* should no longer be deemed reliable authority, and *Washam* and *Fisher* should not be followed.

The court is not persuaded by this argument, which is based on an unduly expansive reading of *Morales*. In *Morales*, a Chicago ordinance authorized police officers to order people to disperse if they reasonably believed the people to be gang members loitering in public places "with no apparent purpose," and to arrest a person who disobeyed the order. The Supreme Court majority found the ordinance invalid because it gave law enforcement officers no guidelines for enforcing it, especially in determining whether a person was loitering "with no apparent purpose." 527 U.S. at 60-64. In opinions concurring in part and concurring in the judgment, Justices O'Connor and Breyer emphasized this lack of guidance for law enforcement. They declined to join Justice Stevens' plurality

opinion regarding the fair notice analysis, which is the portion defendant Niemoeller emphasizes in this case. See 527 U.S. at 65-67 (O'Connor, J.); *id.* at 70-73 (Breyer, J.). The narrowest grounds for the Court's judgment are the controlling reasoning for the lower federal courts. See *Marks v. United States*, 430 U.S. 188, 193 (1977).

Justice Breyer explained that the Chicago ordinance could not be applied constitutionally to anyone because it provided no standards for police officers in applying the "no apparent purpose" element:

> The ordinance is unconstitutional, not because a policeman applied this discretion wisely or poorly in a particular case, but rather because the policeman enjoys too much discretion in *every* case. And if every application of the ordinance represents an exercise of unlimited discretion, then the ordinance is invalid in all its applications.

527 U.S. at 71 (Breyer, J., concurring) (emphasis in original). Justice O'Connor made a very similar point:

> As it has been construed by the Illinois court, Chicago's gang loitering ordinance is unconstitutionally vague because it lacks sufficient minimal standards to guide law enforcement officers. In particular, it fails to provide police with any standard by which they can judge whether an individual has an "*apparent* purpose." Indeed, because any person standing on the street has a general "purpose" – even if it is simply to stand – the ordinance permits police officers to choose which purposes are *permissible*.

Id. at 65-66 (O'Connor, J., concurring) (emphasis in original).

The Controlled Substance Analogue Enforcement Act poses challenges, to be sure, as discussed in more detail below regarding as applied challenges. The Act's challenges, however, are not comparable to the defect of the ordinance in *Morales*, and they do not support the sort of facial challenge that defendant has brought in this case. The Act provides substantial guidance, even though it may be difficult to apply in some cases. To convict someone for violating 21 U.S.C. § 841(a)(1) and § 813 by distributing a controlled substance analogue, the government must be prepared to prove knowing distribution of a substance intended for human consumption. The key concepts in the Controlled Substance Analogue Act – substantial similarity of chemical structure and substantial similarity of stimulant, depressant, or hallucinogenic effects – provide significant guidance for both law enforcement and citizens who seek to comply with the law. Those concepts may not provide absolute certainty in every case in which a person seeks to experiment in reaching the outermost boundaries of lawful conduct, but that is not the standard for due process. On its face, the statute gives fair notice to persons of average intelligence of the conduct proscribed. Whether that notice is sufficient must be determined in context, as applied to the facts of a specific case, including the details of the particular compounds in

question, their actual, intended, or claimed effects, and the defendant's conduct regarding those compounds.

Defendant also points out that a person may need expert advice from a chemist and/or physician or psychologist to determine whether a compound is an analogue. The need for such additional information does not render the statute unconstitutionally vague. When dealing with legislation on complex or technical matters – whether it concerns intricate corporate tax issues, the details of electronic securities transactions, or international trade in "dual use" technologies – Congress can expect a person who wishes to engage in the activity to acquire the necessary specialized knowledge to conform the person's conduct to law. Similarly, when dealing with the distribution of organic chemical compounds for human consumption and with intended or hoped-for central nervous system effects, Congress could reasonably expect and require persons engaged in that activity to possess or obtain the specialized knowledge needed to conform their conduct to law. Also, it takes a chemist to understand many of the compounds on schedule I under the Controlled Substances Act. See 21

C.F.R. § 1308.11.[2] Defendant Niemoeller's facial challenge to the Controlled Substance Analogue Enforcement Act is overruled.

II. *Count Twelve: 1,4-Butanediol as Analogue of GHB*

As applied to Count Twelve, the alleged distribution of 1,4-butanediol as an analogue of GHB, the Eighth Circuit's decision rejecting such a vagueness challenge in *United States v. Washam* is directly on point. 312 F.3d 926 (8th Cir. 2002). The case involved the same compounds and testimony from some of the same witnesses. Judge Sweet's decision to dismiss similar charges in *United States v. Roberts*, 2002 WL 31014834 (S.D.N.Y. Sept. 9, 2002), is also on point and reached the opposite result regarding 1,4-butanediol.

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[2]Schedule I includes, among many compounds: Acetyl-alpha-methylfentanyl (N-[1-(1-methyl-2-phenethyl)-4-piperidinyl]-N-phenylacetamide); Alpha-methylfentanyl (N-[1-(alpha-methyl-beta-phenyl)ethyl-4-piperidyl] propionanilide; 1-(1-methyl-2-phenylethyl)-4-(N-propanilido) piperidine); 4-Bromo-2,5-dimethoxyphenethylamine; N,N-dimethylamphetamine (also known as N,N-alpha-trimethyl-benzeneethanamine; N,N-alpha-trimethylphenethylamine); and N-[1-(2-thienyl)methyl-4-piperidyl]-N-phenylpropanamide (thenylfentanyl), its optical isomers, salts and salts of isomers. Surely the "average" person on the street would need some help in interpreting and applying this law, but that need does not preclude the enforcement of the law. For another challenging provisions of federal law requiring expert guidance, see 26 U.S.C. § 809 (tax provision designed to equalize tax burdens on mutual life insurance companies and stock life insurance companies); see generally 26 U.S.C. § 1 *et seq*.

In *Washam*, the Eighth Circuit affirmed convictions in the face of a vagueness challenge presenting essentially the same arguments that defendant makes here: that the concepts of substantially similar chemical structure and substantially similar effects are too vague to give fair notice of the conduct proscribed, and that if courts and experts disagree on the meaning of the statute as applied to the case, a conviction must violate due process.

The Eighth Circuit relied on the "extraordinarily relevant" evidence to the effect that after a person ingests 1,4-butanediol, the compound is metabolized by enzymes in two steps so as to become GHB. 312 F.3d at 932-33. The court also discussed the evidence that the effects on the central nervous system are substantially similar, though not necessarily identical. *Id.* The fact that not all available expert witnesses agreed that one substance is an analogue of the other did not mean the statute was unconstitutionally vague as applied. *Washam*, 312 F.3d at 931, citing *United States v. McKinney*, 79 F.3d 105, 108 (8th Cir. 1996), *vacated on other grounds*, 520 U.S. 1226 (1997).

This is not to say that *Washam* determined as a matter of law that 1,4-butanediol is an analogue of GHB. Rather, the Eighth Circuit affirmed a conviction by a jury that had heard conflicting evidence about the chemical structures and effects of the compounds, and that had been instructed on the

statutory definition of a controlled substance analogue. 312 F.3d at 928-29. The government will still be required to prove the elements here beyond a reasonable doubt, if it can.

The court has also considered Judge Sweet's decision in *Roberts*, which the Eighth Circuit criticized in *Washam*. The court agrees with the Eighth Circuit's criticisms. The *Roberts* decision seems to conclude that similarity of chemical structure must be decided in the abstract, without consideration of other facts, such as the metabolism of the compound. See 2002 WL 31014835, *4 (minimizing significance of fact that body metabolizes 1,4-butanediol into GHB, with similar pharmacological effects). But consideration of structural similarity does not or should not take place in a vacuum. The question must be refined – similar in what ways and for what purposes? The answer is apparent from the provisions and purposes of the Controlled Substances Act and the Controlled Substances Analogue Act. The concern with analogues is with substances intended for human consumption. Such intent is an element of 21 U.S.C. § 813. The government is also required to prove that the alleged analogue has stimulant, depressant, or hallucinogenic effects "substantially similar to or greater than" the effects of a controlled substance in schedule I or II (or that the defendant claimed it would have such effects). Such effects may be considered in evaluating structural similarity. *Washam*, 312 F.3d at 932-33 (court and jury may consider

the effects on the human body when determining whether the chemical satisfies the structural similarity requirement). Consideration of such effects does not, in this court's view, conflate two distinct statutory requirements, but instead allows a pragmatic approach consistent with the Act's concerns about experiments with human consumption of organic compounds. But see *Roberts*, 2002 WL 31014834, *5 (criticizing government for conflating two elements of analogue definition).

The 1,4-butanediol and GHB molecules are identical in structure along the central carbon chain and in the functional groups at one end of that chain. The two compounds have different functional groups at the other end of the chain. GHB contains a carboxylic acid functional group of one carbon atom bonded to two oxygen atoms, one of which also bonds with one hydrogen atom. 1,4-Butanediol contains an alcohol functional group of one carbon atom bonded to one oxygen atom, bonded in turn to one hydrogen atom. It is possible to synthesize or discover many other organic compounds with the same common structure and different functional groups at the point where GHB and 1,4-butanediol differ. In evaluating structural similarity, however, it is at least relevant that the body metabolizes 1,4-butanediol in a matter of minutes to produce GHB. That combination of structural similarity and similar effects in the body could support a reasonable finding, as in *Washam*, that 1,4-butanediol is

an analogue of GHB. And that combination of structural similarity and similar effects can be sufficient to give fair notice to a person distributing 1,4-butanediol for human consumption that the compound is an analogue of GHB. At least prior to trial, the court cannot say that a conviction here would violate due process. Defendant's motion to dismiss Count Twelve is hereby denied.

III. *Counts Nine and Eleven: 2-CT-7 as Analogue of "Nexus"*

A compound known as 2CB, also known as "Nexus," is a schedule I controlled substance. Its chemical name is 2,5-dimethoxy-4-bromo-phenethylamine. It has a phenyl ring, an amine side chain extending from the number one carbon atom on the ring, and oxygen-carbon chains extending from the number two and five carbon atoms on the ring. Attached to the number four carbon on the ring is a bromine atom.

Counts Nine and Eleven charge defendant Niemoeller with distributing 2-CT-7, also known as 2,5-dimethoxy-4-(n)-propylthiophenethylamine. See Govt. Ex. 9. At the time of the alleged distributions in 2001 in this case, 2-CT-7 was not a controlled substance, but it has since been added to schedule I on a temporary and emergency basis. See 21 C.F.R. § 1308.11(g)(5). The structure of 2-CT-7 is the same as that of 2CB except at the number four carbon on the

phenyl ring. Instead of the bromine atom on 2CB, 2-CT-7 has a sulfur atom, from which extends a further chain of three carbon atoms with seven hydrogen atoms attached.

The evidence offered at the hearing concerning 2CB and 2-CT-7 was much more limited than that offered concerning 1,4-butanediol and GHB. Nevertheless, the government has come forward with some evidence tending to show substantial structural similarity and substantially similar hallucinogenic effects. Whether the government may ultimately meet its burden remains to be seen. The evidence offered concerning structure and effects is of the same general type that persuaded the Eighth Circuit in *Washam* and the Eleventh Circuit in *Fisher* to reject vagueness challenges to the analogue definition as applied to those cases. The court finds those decisions persuasive on this point, and defendant's motion to dismiss Counts Nine and Eleven is hereby denied.

So ordered.

Date: January 24, 2003

DAVID F. HAMILTON, JUDGE
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Southern District of Indiana

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